

IN THE CLAIMS:

1.-9. (cancelled)

10. (currently amended) A dishwasher comprising:

a wash chamber; and

a valve configured to deliver water into said wash chamber;

~~a turbine ratemeter positioned in flow communication with a valve that delivers water into said wash chamber in flow communication with said valve, said turbine ratemeter generating a signal comprising a plurality of square waves representing a quantity of water flow through said valve; and~~

a controller in signal communication with said turbine ratemeter, said controller controlling said valve in response to the signal received from the turbine ratemeter.

11. (currently amended) A dishwasher in accordance with Claim 10 further comprising[:] a pump motor configured to pump liquid into said wash chamber; ~~and a, said~~ controller coupled to said motor, said controller configured to detect a cavitation of said pump and use said ratemeter to deliver a predetermined amount of water upon the detection.

12. (original) A dishwasher in accordance with Claim 11 wherein said controller configured to detect a cavitation by sensing a current to said motor.

13. (original) A dishwasher in accordance with Claim 12 wherein said controller configured to detect a cavitation by sensing a phase of an alternating current to said motor.

14. (previously presented) A dishwasher comprising:

a wash chamber;

a valve and a turbine ratemeter positioned to deliver a metered amount of water into said wash chamber; and

a controller coupled to said valve and said turbine ratemeter, said controller configured to deliver a first amount of water to the dishwasher for a first dishwashing cycle;

monitor at least one operation of the dishwasher during the first dishwashing cycle to detect an underfill condition;

add additional water to the dishwasher upon detecting at least one underfill condition during the first dishwashing cycle;

retain a first total amount of additional water added during the first dishwashing cycle;

deliver the first amount of water to the dishwasher for a second dishwashing cycle subsequent the first cycle;

monitor at least one operation of the dishwasher during the second dishwashing cycle to detect an underfill condition;

add additional water to the dishwasher upon detecting at least one underfill condition during the second dishwasher cycle;

retain a second total amount of additional water added during the second dishwashing cycle; and

determine a second amount of water to deliver to the dishwasher for a third dishwashing cycle subsequent the second cycle using the retained first total amount of additional water added and the retained second total amount of additional water added.

15. (original) A dishwasher in accordance with Claim 14 further comprising a pump motor coupled to said controller, said controller further configured to monitor said pump to detect a pump cavitation.

16. (original) A dishwasher in accordance with Claim 15, wherein said controller further configured to deliver a predetermined amount of water to said wash chamber upon a detecting the pump cavitation.

17. (original) A dishwasher in accordance with Claim 15, wherein said controller further configured to provide an indication upon detecting the pump cavitation.

18. (original) A dishwasher in accordance with Claim 17, wherein said controller further configured to provide a visual indication upon detecting the pump cavitation.

19. (original) A dishwasher in accordance with Claim 17, wherein said controller further configured to provide an audible indication upon detecting the pump cavitation.

20. (original) A dishwasher in accordance with Claim 14, wherein said controller further configured to:

after a power loss, deliver the first amount of water to the dishwasher for a first dishwashing cycle subsequent the power loss;

monitor at least one operation of the dishwasher during the first dishwashing cycle subsequent the power loss to detect an underfill condition;

add additional water to the dishwasher upon detecting at least one underfill condition during the first dishwashing cycle subsequent the power loss;

retain a first total amount of additional water added during the first dishwashing cycle subsequent the power loss;

deliver the first amount of water to the dishwasher for a second dishwashing cycle subsequent the first cycle subsequent the power loss;

monitor at least one operation of the dishwasher during the second dishwashing cycle subsequent the power loss to detect an underfill condition;

add additional water to the dishwasher upon detecting at least one underfill condition during the second dishwasher cycle subsequent the power loss;

retain a second total amount of additional water added during the second dishwashing cycle subsequent the power loss; and

determine a second amount of water to deliver to the dishwasher for a third dishwashing cycle subsequent the second cycle subsequent the power loss using the retained first total amount of additional water added and the retained second total amount of additional water added.